Fujitsu recommends Windows 8 Pro.

Data Sheet
Fujitsu CELSIUS C620 Workstation

1U of Pure Workstation Performance

If you need maximum workstation performance out of the datacenter, Fujitsu's compact CELSIUS C620 is your choice. The 1U rack-mount workstation sophisticatedly combines high-end graphics and single processor performance at highest density. Thus it is the ideal system for all users of CAx, DCC, Visualization or HPC applications, having only limited space. Full security is ensured by keeping the high-quality CELSIUS C620 in the datacenter.

Density
Space saving workstation
- Full workstation performance packed in only 1U

Performance
Fully concentrate on core activities
- Sophisticated combination of Intel® Xeon® processor and high-end graphics cards ideal for remote CAx or HPC

Best visualization
Full GPU performance out of the datacenter
- Fujitsu CELSIUS C620 e.g. as a node in a render cluster

CELSIUS offering
Different workstations to meet individual needs
- Expands the CELSIUS portfolio to the datacenter

Manageability
Easy manageability saves time and resources
- Onboard gigabit remote management controller (iRMC S3)

Fujitsu recommends Windows 8 Pro.

Components

Processor	Intel® Core™ i3-3220 processor (2 Cores / 4 Threads, 3.30 GHz, 3 MB, Intel® HD Graphics 2500)
	Intel® Xeon® processor E3-1280v2 (4 Cores / 8 Threads, 3.60 GHz, up to 4.0 GHz, 8 MB)
	Intel® Xeon® processor E3-1275v2 (4 Cores / 8 Threads, 3.50 GHz, up to 3.9 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1270v2 (4 Cores / 8 Threads, 3.50 GHz, up to 3.9 GHz, 8 MB)
	Intel® Xeon® processor E3-1245v2 (4 Cores / 8 Threads, 3.40 GHz, up to 3.8 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1240v2 (4 Cores / 8 Threads, 3.40 GHz, up to 3.8 GHz, 8 MB)
	Intel® Xeon® processor E3-1230v2 (4 Cores / 8 Threads, 3.30 GHz, up to 3.7 GHz, 8 MB)
	Intel® Xeon® processor E3-1225v2 (4 Cores / 4 Threads, 3.20 GHz, up to 3.6 GHz, 8 MB, Intel® HD Graphics P4000)
	Intel® Xeon® processor E3-1220v2 (4 Cores / 4 Threads, 3.10 GHz, up to 3.5 GHz, 8 MB)
	Intel® vPro™ with all Intel® Xeon® processors
Operating systems	
Operating system	Windows® 7 Professional 64-bit Windows 8 Pro Windows 8
Operating system compatible	Windows® XP Linux Windows® Server 2008 R2
Operating system notes	Novell® certification pending For some configurations third party drivers are currently not available or configuration restrictions may apply. Limited Windows® XP support. Microsoft discontinued Windows® XP certification on system level, basic drivers via http://support.ts.fujitsu.com Certified for Red Hat® Enterprise Linux Certified for SUSE Enterprise Desktop Certified for SUSE Enterprise Server
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1600 MHz, PC3-12800, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, non-ECC, 1600 MHz, PC3-12800, DIMM
Graphics	Ultra-high-end 3D: NVIDIA® Quadro® 6000, 6 GB, 448 cores, PCIe x16, 1x DVI-I, 2x DisplayPort
	Ultra-high-end 3D: NVIDIA® Quadro® 5000, 2.5 GB, 352 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	High-end 3D: AMD FirePro™ V7900, 2 GB, 1140 stream processors, PCIe x16, 4 x DisplayPort
	High-end 3D: NVIDIA® Quadro® 4000, 2 GB, 256 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ W5000, 2 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ V5900, 2 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, Dual Link DVI-I, DisplayPort
	Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, Dual Link DVI-I, DisplayPort
	Entry 3D: NVIDIA® Quadro® 410, 512 MB, 192 cores, PCIe x16, 1x DVI-I, DisplayPort
	Remote Graphics: CELSIUS RemoteAccess Card, PCIe x1, 2x DVI-I, PCoIP
	GPU computing card: NVIDIA® Tesla™ C2075, 6 GB, 448 cores, PCIe x16, 1x DVI-I

Hard disk drives (internal)	SSD SATA III, 512 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch
	SSD SATA III, 128 GB, 2.5-inch
	SSD SATA, 128 GB, 2.5-inch, FDE
	HDD SATA III, 10000 rpm, 1000 GB, 2.5-inch, business critical
	HDD SATA III, 10000 rpm, 600 GB, 2.5-inch
	HDD SATA III, 10000 rpm, 500 GB, 2.5-inch, business critical
	HDD SATA III, 10000 rpm, 300 GB, 2.5-inch
	HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch
	HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical
	HDD SAS, 15000 rpm, 300 GB, 2.5-inch
	HDD SAS, 10000 rpm, 600 GB, 2.5-inch
	HDD SAS, 10000 rpm, 450 GB, 2.5-inch
	HDD SAS, 10000 rpm, 300 GB, 2.5-inch
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. 24/7 ready (business critical HDDs required) Up to 20 GB of HDD space is reserved for system recovery
Onboard or integrated Controller	
RAID controller	Integrated RAID 0/1 or RAID 5/6 controller (option) additional RAID controller options are described under Components RAID controller
SATA Controller	Intel® C216 , 1 port used for accessible drive 4 port for internal SATA HDDs with RAID 0, 1, 10 for Windows and Linux;
LAN Controller	Intel® 82574L + Intel® 82579LM onboard, 2 x 10/100/1000 Mbit/s Ethernet (TCP/IP acceleration),
Remote Management Controller	IPMI 2.0 compatible
Trusted Platform Module (TPM)	optional TPM
Drives (optional)	DVD SuperMulti SATA slim
Interface add on cards/components (optional)	
	InfiniBand HCA 40Gb/s, 2-Port, QDR
	InfiniBand HCA 40Gb/s, 1-Port, QDR
	Gigabit Ethernet PCIe x1, DS
	Dual 1 Gigabit Ethernet PCIe x4
	Dual 10 Gigabit Ethernet PCIe x8
Base unit	CELSIUS C620
Mainboard	
Mainboard type	D3188
Formfactor	proprietary
Chipset	Intel® C216
Processor socket	LGA 1155
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3) ECC/non-ECC
Supported capacity RAM (max.)	32 GB
Memory frequency	1600 MHz
Memory notes	Dual channel support. For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	2x Built-in 10/100/1000 MBit/s Intel® 82579 LM and Intel® 82574L

Fujitsu recommends Windows 8 Pro.

Mainboard	
BIOS features	BIOS Flash EPROM update by software Recovery BIOS Unified Extensible Firmware Interface (UEFI)
I/O controller on board	
Serial ATA total	5
thereof SATA III	2 (port 0 and 1)
Controller functions	Serial ATA II (3 Gbit) Serial ATA III (6 Gbit) NCQ AHCI RAID 0/1/5/10 (Windows XP not supported) Intel® Smart Response Technology (depending on CPU)
SATA RAID support	0, 1, 10, 5
Interfaces	
USB 2.0 total	2
USB 3.0 total	4
USB front	2x 2.0
USB rear	4x 3.0
USB internal	1
VGA	1 (depends on processor, via DVI to VGA adapter)
DVI	1 (depends on processor)
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)
Ethernet (RJ-45)	2
Drive bays	
Drive bays total	7
2.5-inch internal bays	4
3.5-inch internal bays	2
5.25-inch external bays	1
Slots	
PCI-Express 3.0 x16	1 x (312 mm /) Full height (double slot density)
PCI-Express 2.0 x4 (mech. x16)	1 x (/) Low profile
Graphics on board	
Shared video memory	up to 1759 MB
TFT resolution (VGA)	1024 x 768 pixel 1280 x 1024 pixel 1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1600 x 1200 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
Graphics features	DirectX® 10.1 or DirectX® 11 (depending on CPU) HDCP support Open GL® 3.1 (depending on CPU) Open CL™ 1.1 (depending on CPU)

Graphics on board	
Graphics notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
Electrical values	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87%
Rated voltage range	100 V - 240 V (AC Input)
Rated frequency range	47 Hz - 63 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	500 W
Noise for standard configuration (HDD, ODD)	
Idle mode	39 dB(A)
Office mode	39 dB(A)
Dimensions / Weight / Environmental	
Dimensions (W x D x H)	431 x 683 x 44.45 mm
Operating position	Horizontal
Weight	approx. 13 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35 °C
Operating relative humidity	5 - 85 % (relative humidity)
Compliance	
Product	CELSIUS C620
Model	CR1U
Europe	CE Class A*
USA/Canada	FCC Class A
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL)
Japan	VCCI Class A
Russia	GOST
South Korea	KCC
China	CCC (planned)
Taiwan	BSMI
Saudi Arabia	SASO (planned)
Compliance notes	* Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/
Security	
Audit proof protection	EraseDisk Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces
Access protection	User and supervisor BIOS password Hard disk password

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Additional Software	
Additional software (preinstalled)	Nero Essentials S (burning software) Fujitsu Recovery (Hard Disk Based Recovery) Norton Internet Security (incl. Firewall) 60 days version Don't forget Office.
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) Nero 10 Essentials XL
Miscellaneous	
	Extended lifetime
Manageability	
Manageability technology	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) iAMT Intel® Active Manageability Technology v8.0 (not activated, not set up)
Manageability software	DeskView 10.x client management including:
DeskView components	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
Manageability link	http://www.fujitsu.com/fts/manageability http://www.fujitsu.com/fts/solutions/high-tech/solutions/workplace/manageability/feature-finder.html
Input device / components	
Input devices (optional)	Optical USB tilt wheel mouse Keyboard
Warranty	
Standard Warranty	3 years (depending on country)
Service level	Onsite Service (for countries within region FTS CEMEA&I, for all other countries depending on local regulations, minimum: 3 years material warranty)
Warranty Terms & Conditions	http://support.ts.fujitsu.com/warranty
Maintenance and Support Services - the perfect extension	
Recommended Service	9x5, Response Time: Next Business Day
Spare Parts availability	5 years after end of product life
Service Weblink	http://www.fujitsu.com/fts/services/support

Recommended Accessories

Fujitsu recommends Windows 8 Pro.

Display P24W-6 LED

Enjoy perfect picture quality, outstanding ergonomics and usability as well as comfortable energy saving solutions of this Fujitsu P Line widescreen display.

Order Code:
S26361-K1428-V140

More information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu CELSIUS C620, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio
Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu CELSIUS C620, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/CELSIUS

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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